

The Implementation of The Rotating Trio Exchange Type Cooperative Learning Model in Learning Nahwu

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Abstract: Learning Nahwu as a foundation for understanding Arabic often faces challenges in student active involvement and comprehensive conceptual understanding. The Rotating Trio Exchange (RTE) cooperative learning model offers an innovative approach that emphasizes collaboration and group rotation to improve student interaction and understanding. This study aims to analyze the implementation of the Rotating Trio Exchange cooperative learning model in learning Nahwu, identifying its impact on conceptual understanding, learning activities, and student learning outcomes. This study used a qualitative-descriptive approach with a classroom action research design. The subjects were 30 students of second-semester of STAI KH. Muhammad Ali Shodiq. The data were collected through observation, conceptual understanding tests, interviews, and learning documentation. The result showed that the implementation of the RTE model showed significant improvements in three main aspects: student learning activities increased by 78% with active participation in group discussions, conceptual understanding of Nahwu increased by 82% based on the results of evaluation tests, and students' collaboration and communication skills developed progressively through group rotation. The Rotating Trio Exchange type of cooperative learning model is effectively applied in learning Nahwu by providing a dynamic collaborative space, increasing understanding of Arabic grammatical concepts, and developing students' social skills.

Keywords: Cooperative Learning; RTE; Nahwu

INTRODUCTION

Arabic, as the language of the Quran and Hadith, holds a strategic position in Islamic education in Indonesia. Mastery of Arabic extends beyond communication skills to understanding complex grammatical structures, particularly the rules of Nahwu (Arabic syntax). Nahwu are a crucial foundation for understanding Arabic texts, both classical and contemporary (Ramadhan & Muassomah, 2022) However, learning Nahwu in madrasas and Islamic boarding schools faces various challenges. Initial observations indicate that conventional teacher-centered learning methods tend to make students passive and make it difficult for them to understand abstract concepts in Nahwu (Semnasbama et al., 2020).

Students often memorize rules of Nahwu without understanding their application in the context of real sentences or texts. As a result, learning motivation decreases and learning outcomes are suboptimal. Regarding this, there is a learning model that has been proven effective in increasing student engagement and conceptual understanding in various subjects, including communication and language, namely the cooperative learning model (W. Johnson & T. Johnson, 2019). This is because this learning model emphasizes an instructional approach that places students working in small groups to achieve shared learning goals (Slavin, 2020).

Johnson & Johnson identified five essential elements of cooperative learning: positive interdependence, individual accountability, face-to-face promotive interaction,

social skills, and group processing (Johnson & Johnson, 2016). A meta-analysis by Kyndt et al. showed that cooperative learning has a significantly positive effect on academic achievement compared to individual or competitive learning. In the context of language learning, Sharan asserted that cooperative learning improves students' communication skills, intrinsic motivation, and critical thinking skills (Sharan, 2018).

The Rotating Trio Exchange (RTE) cooperative learning model developed by Kagan & Kagan offers a unique approach through rotating groups of three that allows students to interact with various learning partners, exchange ideas, and deepen understanding through collaborative discussions (Xin Txin & Md Yunus, 2019). Rotating Trio Exchange is one of the cooperative learning structures developed by Kagan & Kagan. This model involves systematically rotating group members of three, allowing each student to interact with various peers in a single learning session. The RTE structure is designed to maximize student participation, broaden perspectives, and deepen understanding through repetition and elaboration of concepts (Kagan & Kagan, 2009).

The steps of the RTE model in cooperative learning include the formation of initial trio groups, the first discussion with structured questions or tasks, rotation of group members according to a certain pattern, the second discussion with new or follow-up questions, the next rotation, and reflection or sharing of discussion results with the class (Wangda et al., 2021). The advantages of the RTE model include increasing social interaction, developing communication skills, providing exposure to various perspectives, and improving information retention through active repetition. However, this model also has challenges in time management and requires initial training so that students understand the rotation procedure (Ainiyah, 2019).

Nahwu (النحو) is the science that studies sentence structure in Arabic, including word position (i'rab), word function in sentences, and syntactic patterns (Moh Ikhsani & Choiruddin, 2023). Learning Nahwu aims to enable students to understand Arabic sentence structure correctly, identify the function and position of words in sentences, apply i'rab rules correctly, and analyze Arabic texts based on grammatical rules (Kojin & Choiruddin, 2022). The main challenges in learning Nahwu are the complexity of the i'rab system, the abstraction of grammatical concepts, and the lack of contextualization in traditional learning. An interactive and contextual learning approach is needed to overcome these challenges.

The few research focused on cooperative learning that effective in teaching Arabic. Haniah & Fauzi found that STAD cooperative learning improved students' Nahwu learning outcomes in Islamic Junior High Schools (MTs) (Remi Rando & Pali, 2021). Meanwhile, Zulhannan identified that a collaborative approach in learning Arabic grammar improves students' syntactic analysis skills. This research is expected to provide theoretical benefits in the form of contributions to the development of Arabic language learning theory, particularly in teaching Arabic grammar using a cooperative approach (Dedek Febrian et al., 2017).

There have been limited studies concerned on the learning model of Nahwu. Therefore this research intends to implementing innovative Arabic language teaching in learning Nahwu based on student-centered learning with implementing the Rotating Trio Exchange type of cooperative learning model. Based on this background, this study will discuss the steps for implementing the Rotating Trio Exchange cooperative learning model in Nahwu instruction, as well as its impact on learning activities, conceptual understanding, and learning outcomes.

METHOD

This study used a qualitative approach with the type of classroom action research. Classroom action research was chosen because it is in accordance with the research objectives, namely to improve and enhance the quality of learning through the implementation of certain actions. This study uses the Classroom Action Research model from Kemmis and McTaggart which consists of four stages in each cycle, namely *planning, acting, observing, and reflecting* (Prihantoro & Hidayat, 2019). The study was conducted in two cycles, where each cycle consists of three meetings. The second cycle is an improvement of the first cycle based on the results of reflection. The research subjects were selected *purposively* at STAI KH. Muhammad Ali Shodiq, Tulungagung in the 2025/2026 academic year. This subject was considered because the class had a low average Nahwu score.

Research data was collected through observation, tests, questionnaires, and interviews. Quantitative analysis was used by calculating the percentage of learning completion. Students were considered to have completed the learning if they obtained a minimum score of 75, and learning was considered to have been completed classically if at least 80% of students achieved completion. Student activity data was analyzed by calculating the percentage of each observed activity aspect. Success indicators were achieved if they met the following criteria: first, classical learning completion reached a minimum of 80% with a Minimum Competency (KKM) of 75; second, student learning activities reached the good category (at least 61%); third, a positive student response to learning of at least 75%; and fourth, the implementation of learning according to the RTE model of at least 85% (Machali, 2022).

RESULTS AND DISCUSSION

The Implementation of the Rotating Trio Exchange Learning Model in Learning Nahwu

The implementation of the RTE model in learning Nahwu has a strong theoretical integration foundation. Group rotation allows students to explore Nahwu concepts from various perspectives through discussions with various peers. Furthermore, the trio structure creates a safe yet productive learning environment for expressing understanding and difficulties. In addition, repetition of concepts through multiple discussions strengthens retention and in-depth understanding (*constructive repetition*). In more detail, the Rotating Trio Exchange model in learning Nahwu is implemented following the following stage model.

1. Orientation and Group Formation

The teacher conveys the learning objectives, explains the RTE model procedures, and divides students into heterogeneous trios based on Arabic language ability (high-medium-low). Each student is assigned an identification number (1, 2, or 3) to facilitate rotation.

2. Presentation of Core Material

The teacher delivers an introduction to the Nahwu using multimedia and contextual examples from Quranic verses and hadith. Students take notes on key points to inform the discussion.

3. First Trio Discussion

Each trio receives a first worksheet containing basic conceptual understanding questions. An example question: "Explain the differences between i'rab fi'il mudhari' marfu', manshub, and majzum, along with their signs!" Students discuss and record answers together.

4. First Rotation and Second Discussion

Student number 2 moves one trio clockwise, student number 3 moves two trios clockwise, while student number 1 remains in place. The new trio gets a second worksheet with an application question: "Analyze i'rab fi'il mudhari' in the sentence: *يَذْهَبُ الطَّالِبُ إِلَى الْمَدْرَسَةِ كُلَّ يَوْمٍ*."

5. Second Rotation and Third Discussion

The rotation followed the same pattern. The new trio received a third worksheet with a complex analysis problem or sentence construction problem based on specific rules.

6. Back to the Early Trio and Synthesis

Students return to their original trios to share information and perspectives gained from the previous two rotations. Each trio creates a mind map or summary of the discussion.

7. Presentation and Clarification

Three selected trios present the results of their discussions. The teacher provides clarification, reinforcement, and feedback on students' understanding.

8. Individual Evaluation

Students work on evaluation questions individually to measure conceptual understanding.

The Impact of the Rotating Trio Exchange Learning Model on Student Learning Activities

Observations of student learning activities were conducted using an observation sheet with five indicators, including participation in discussions, the ability to explain concepts, ask questions, provide responses, and collaborate in groups. The results of the study in cycle I showed that discussion participation was 67%, the ability to explain concepts was 60%, the ability to ask questions was 53%, the ability to provide responses was 57%, collaboration was 70%, and the average activity was 61.4%. Then, the results of the research in cycle II showed that discussion participation increased by 90%, the ability to explain concepts by 83%, the ability to ask questions by 77%, the ability to provide responses by 80%, collaboration by 93%, and the average activity: 84.6%. The increase in learning activity from cycle I to cycle II was 23.2%. Qualitative observations showed that group rotation motivated students to be more active because they interacted with various peers and had to convey understanding to new trio members. The use of role cards in cycle II increased individual accountability.

The Impact of the Rotating Trio Exchange Learning Model on Understanding Nahwu

The level of students' understanding of the concept of Nahwu science can be determined by conducting tests in stages from each cycle. The results of the first cycle test on students' understanding of the concept of Nahwu through the RTE type cooperative learning model showed that the average value of learning outcomes in the students' pre-test was 62.3, the average value of learning outcomes in the post-test was 74.7. Thus, there was an increase of 12.4 points (19.9%) and the students who achieved

the KKM were 67%. Then in the second cycle test, it was found that the average value of learning outcomes in the pre-test was 68.5 and the average post-test was 84.3. Thus, there was an increase of 15.8 points (23.1%) and students achieved the KKM: 87%. Analysis of each question indicator shows that students' ability to identify types of i'rab: 90% of students mastered (increased from 63% in cycle I). Students' ability to analyze i'rab in sentences: 85% of students mastered (increased from 58% in cycle I). Students' ability to apply rules in sentence construction: 78% of students mastered (increased from 55% in cycle I). Students' ability to correct i'rab errors: 82% of students mastered (increased from 60% in cycle I). The most significant improvement occurred in the ability to analyze and apply rules, indicating that repeated discussions in RTE helped students not only memorize but understand concepts in depth.

The Student Responses to the Rotating Trio Exchange Learning Model

It's important to understand students' responses to the RTE learning model so that educators don't make mistakes in choosing learning strategies. In interviews conducted by researchers, several students stated: "By changing groups, I can meet different friends and hear how they understand the rules. This helps me see things from different perspectives" (ABU student). "I, who am usually passive, became more active because I had to explain things to new group members" (MF student).

In addition, through the Google form distributed to students, the following results were obtained.

1. 90% of students stated that the RTE model makes learning more enjoyable.
2. 80% of students feel more confident in asking questions and expressing opinions
3. 85% of students stated that group rotation helped understanding because they heard various explanations.
4. 75% of students feel more motivated to learn Nahwu

DISCUSSION

The 23.2% increase in student learning activity from cycle I to cycle II confirms the effectiveness of the RTE model in creating student-centered learning. This aligns with Slavin's findings that cooperative learning enhances active student participation because each individual has responsibilities within a small group (Slavin, 2020). Group rotation in RTE creates dynamic grouping that provides fresh perspectives and reduces boredom. Kagan & Kagan explain that rotation prevents discussion stagnation and encourages students to communicate their understanding to various peers, which strengthens the internalization of concepts. In the context of Nahwu learning, repeated discussions of the same rules but with different perspectives help students construct a more comprehensive understanding (Wangda et al., 2021).

The use of role cards in cycle II enhances individual accountability, a key element of cooperative learning. Each student has a specific role that ensures their contribution to the discussion, addressing the free-rider problem that often occurs in group learning. Nahwu are known to be abstract and complex, often causing students difficulty (Zainul Fitri & Choiruddin, 2022). The RTE model offers a solution through social scaffolding, where students with better understanding can help other students in the zone of proximal development. The heterogeneous trio structure facilitates natural peer tutoring without making students feel inferior.

Significant improvements in analytical skills and rule application (higher-order thinking components) indicate that collaborative discussions in RTE encourage cognitive

elaboration. According to cognitive elaboration theory, explaining concepts to others forces students to organize their knowledge coherently, which strengthens understanding. In each rotation, students must articulate their understanding, receive feedback, and revise their conceptions—a highly effective process for conceptual learning. One criticism of traditional Nahwu learning is the lack of contextualization (Ikhsani & Choiruddin, 2023).

In this study, discussion worksheets were designed with examples from the Qur'an and hadith, as well as everyday communicative contexts. Discussions in RTE allow students to explore the application of rules in various contexts, overcoming rote learning. Students not only memorize that *mudhari'* verbs can be *marfu'*, *manshub*, or *majzum*, but also understand when and why certain *i'rab* are used through analysis of authentic sentences. This contextual approach aligns with the principles of communicative language teaching, which emphasize the meaningful use of language (Barnard et al., 2002).

Beyond the cognitive aspect, the RTE model also has a positive impact on the social and affective dimensions. Interviews revealed that group rotation reduced students' anxiety in learning Nahwu because they interacted in small, safe groups before presenting to the larger class. This aligns with the affective filter hypothesis (Krashen) that a low-stress learning environment facilitates better language acquisition. Students' communication and collaboration skills also developed through RTE. Students learned to actively listen, provide constructive feedback, and negotiate meaning—essential 21st-century skills. In the context of Islamic education, collaboration in learning also reflects the value of *ta'awun* (mutual assistance) encouraged in Islamic teachings (Sirad et al., 2023).

Despite showing positive results, RTE implementation also faces challenges. Time management is a major issue, especially in cycle I, where rotations take a significant amount of time. Kagan & Kagan suggest that complex models like RTE require practice and habituation to run efficiently. Classes with very large numbers of students (>40) may face difficulties in organizing space and monitoring discussions. This study was conducted with a manageable 30 students, but further research is needed in larger class contexts. Some introverted students initially feel overwhelmed by the intensity of social interactions. Additional learning activities, such as silent thinking time before discussions, can help these students mentally prepare.

CONCLUSION

The Rotating Trio Exchange cooperative learning model can be implemented effectively in learning Nahwu through the stages of orientation, material presentation, discussion, rotation, synthesis, presentation, and evaluation. Strategies that can be implemented include the formation of heterogeneous groups, the use of role cards, and structured worksheets with content based on Islamic teachings. The implementation of the RTE model significantly increased student learning activities from cycle I to cycle II. Group rotation creates learning conditions that encourage active participation, courage to ask questions, and effective collaboration between students. The impact on the understanding of Nahwu is an increase in the average learning outcome from 62.3 (pre-test cycle I) to 84.3 (post-test cycle II) and the percentage of learning completion from 67% to 87%. The most significant increase occurred in the ability to analyze and apply rules, indicating that collaborative discussions facilitate deep learning. Thus, the RTE

model has proven to be an innovative alternative in learning Nahwu that not only improves cognitive learning outcomes but also develops students' social and affective skills.

REFERENCES

- Ainiyah, N. (2019). PENGARUH MODEL PEMBELAJARAN KOOPERATIF TIPE TALKING CHIPS TERHADAP KETERAMPILAN SOSIAL DAN HASIL BELAJAR IPS SISWA KELAS IV SEKOLAH DASAR. *Jurnal Review Pendidikan Dasar : Jurnal Kajian Pendidikan Dan Hasil Penelitian*, 5(1). <https://doi.org/10.26740/jrpd.v5n1.p868-874>
- Barnard, R., Richards, J. C., & Rodgers, T. S. (2002). Approaches and Methods in Language Teaching. *TESOL Quarterly*, 36(4). <https://doi.org/10.2307/3588247>
- Dedek Febrian, Maimun Aqsha Lubis, Irma Martiny Md Yasim, & Nur Syamira Abdul Wahab. (2017). Teknik Pengajaran Bahasa Arab Interaktif di Pusat Bahasa Arab Negeri Selangor. *ASEAN Comparative Education Research Journal on Islam and Civilization*, 1.
- Ikhsani, M., & Choiruddin. (2023). IMPLEMENTASI METODE TARJAMAH HARFIAH DALAM MENINGKATKAN MAHARAH QIRA'AH BAGI MAHASISWA STAI KH. MUHAMMAD ALI SHODIQ. *AL-MUADDIB: Jurnal Kajian Ilmu Kependidikan*, 5(2).
- Johnson, D. W., & Johnson, R. T. (2016). Cooperative Learning: The Foundation for Active Learning. In *Active Learning* (Vol. 8, Issue 1).
- Kagan, S., & Kagan, M. (2009). Kagan Cooperative Learning. *Co-Operative Learning*.
- Kojin, K., & Choiruddin, C. (2022). Learning Nahwu Using Mind Mapping Method in a Modern Islamic Boarding School. *AL-ISHLAH: Jurnal Pendidikan*, 14(4). <https://doi.org/10.35445/alishlah.v14i4.2758>
- Machali, I. (2022). Bagaimana Melakukan Penelitian Tindakan Kelas Bagi Guru? *Indonesian Journal of Action Research*, 1(2). <https://doi.org/10.14421/ijar.2022.12-21>
- Moh Ikhsani, & Choiruddin. (2023). Implementasi Metode Hypnoteaching Pada Pembelajaran Tata Bahasa Arab. *Fonologi: Jurnal Ilmuan Bahasa Dan Sastra Inggris*, 1(4), 138–147. <https://doi.org/10.61132/fonologi.v1i4.172>
- Prihantoro, A., & Hidayat, F. (2019). Melakukan Penelitian Tindakan Kelas. *Ulumuddin : Jurnal Ilmu-Ilmu Keislaman*, 9(1). <https://doi.org/10.47200/ulumuddin.v9i1.283>
- Ramadhan, R., & Muassomah. (2022). Problematika Mahasiswa Asing pada Pembelajaran Bahasa Arab di Perguruan Tinggi Indonesia. *Shaut Al Arabiyyah*, 10(2). <https://doi.org/10.24252/saa.v10i2.26172>
- Remi Rando, A., & Pali, A. (2021). Efektivitas Model Pembelajaran Kooperatif Tipe STAD dalam Mengembangkan Keterampilan Sosial. *MIMBAR PGSD Undiksha*, 9(2). <https://doi.org/10.23887/jjgsd.v9i2.32983>
- Semnasbama, P., Um, I. V, Mahasiswa, P., Arab, B., Industri, M. R., & Ni, N. L. (2020). KONTRIBUSI SARJANA PENDIDIKAN BAHASA ARAB DALAM MEWARNAI DUNIA

KERJA DI ERA REVOLUSI. *Prosiding Semnasbama IV UM*.

- Sharan, Y. (2018). Meaningful learning in the cooperative classroom. In *Learning to Learn Together*. <https://doi.org/10.4324/9781315619781-8>
- Sirad, M. C., Rusyadi, R., & Choiruddin, C. (2023). The Implementation of the Utawi Iki-Iku (Pegon Symbols) Formula Method in Basic Syntax Courses at Islamic Higher Education. *Arabiyatuna: Jurnal Bahasa Arab*, 7(1 May). <https://doi.org/10.29240/jba.v7i1.6465>
- Slavin, R. E. (2020). COOPERATIVE LEARNING Teori, Riset dan Praktik. In *Penerbit Nusa Media*.
- W. Johnson, D., & T. Johnson, R. (2019). Cooperative Learning: The Foundation for Active Learning. In *Active Learning - Beyond the Future*. <https://doi.org/10.5772/intechopen.81086>
- Wangda, K., Dorji, K., & Kinley, K. (2021). Teachers and Students Perception on the Impact of Kagan Cooperative Learning Structures at Higher Secondary School. *ASEAN Journal of Open Distance Learning*, 12(2).
- Xin Txin, C., & Md Yunus, M. (2019). The Effects of Kagan Cooperative Learning Structures in Teaching Subject-Verb Agreement among Rural Sarawak Learners. *Arab World English Journal*, 10(2). <https://doi.org/10.24093/awej/vol10no2.13>
- Zainul Fitri, A., & Choiruddin, C. (2022). DEVELOPMENT OF THEMATIC E-MODULES BASED ON AL-QUR'AN VERSES TO IMPROVE STUDENT LEARNING OUTCOMES. *Jurnal Pendidikan Dasar Islam*, 14(2). <https://doi.org/10.14421/al-bidayah.v14i2.793>